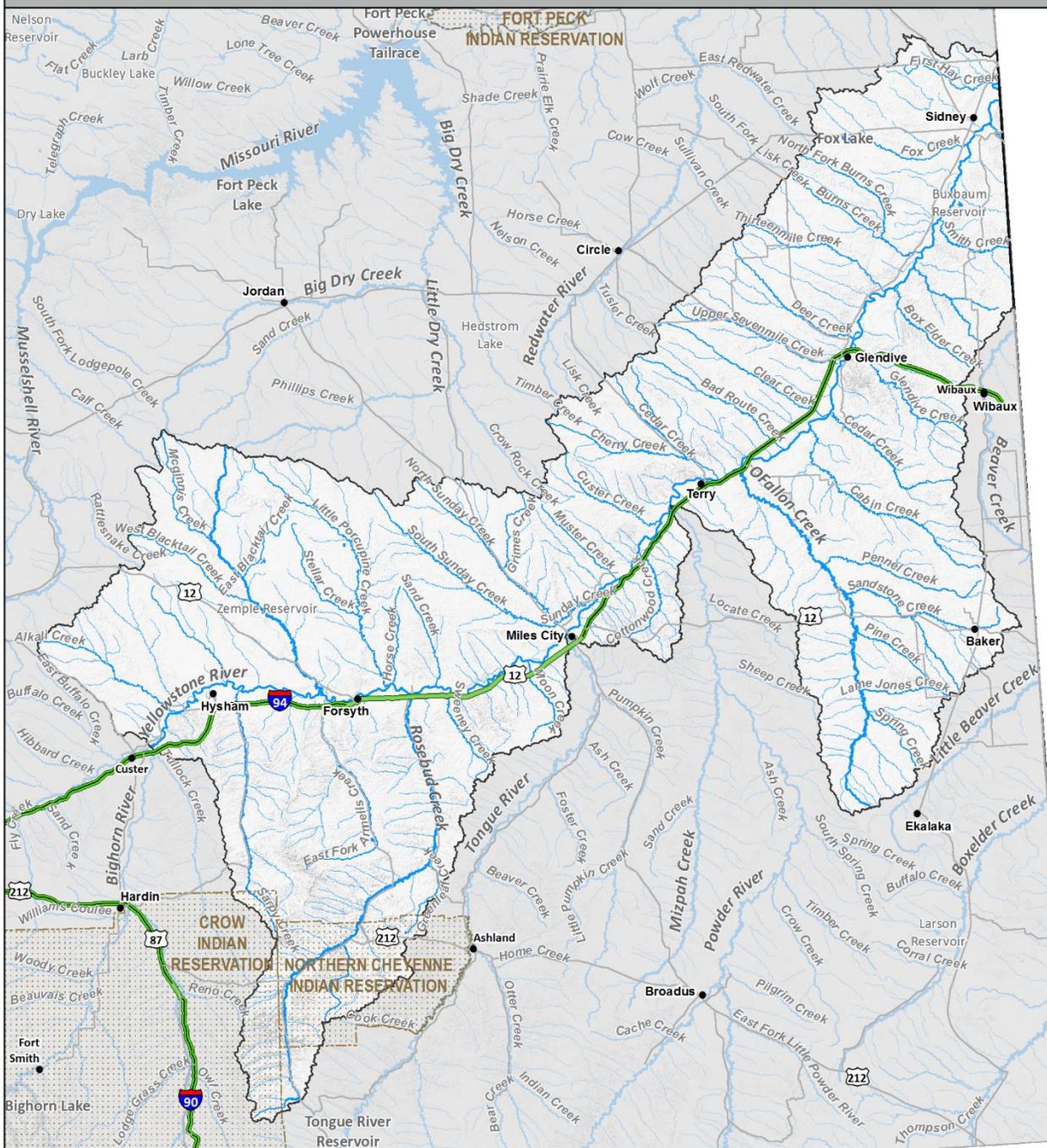


Lower Yellowstone River Drainage

MONTANA FWP



Tribal Lands
 Drainage Boundary

Map Produced by:
ASP - Geographic Data Services
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Lower Yellowstone River Drainage

Physical Description

The lower Yellowstone River drainage includes the Yellowstone River, seven perennial streams (Burns, Rosebud, O'Fallon, Cedar, Cabin, Fox, and Thirteenmile creeks) and numerous intermittent and ephemeral warmwater prairie streams. No natural lakes are located within the drainage; however, nine public reservoirs (Castle Rock, Baker, Hollecker, South Sandstone, Gartside, Johnson's, Rattlesnake, Homestead, and Spotted Eagle) and numerous smaller public and private reservoirs and stock ponds are managed for fisheries. The drainage includes all or portions of Big Horn, Treasure, Rosebud, Custer, Prairie, Fallon, Dawson, and Richland counties.

The Yellowstone River is the largest water body within the drainage. The Yellowstone River flows north into Montana from Yellowstone National Park and continues northeast through central and eastern Montana and crosses into North Dakota approximately 15 miles prior to its confluence with the Missouri River. The Yellowstone River in FWP Region 7 consists of 293 river miles between the Bighorn River confluence and North Dakota state line. About 90% of all uses of Yellowstone River water in the drainage is for irrigation; roughly 1.5 million acre-feet of water is used annually. Irrigation pumps, gravity-feed canals without dams, and gravity-feed canals with mainstem low-head irrigation diversion dams (Ranchers, Yellowstone River, Cartersville, and Intake) are used to withdraw water for irrigation.

The lower Yellowstone River drainage is in a rural setting with several small communities, including Hysham, Forsyth, Colstrip, Rosebud, Miles City, Terry, Fallon, Glendive, Savage, Crane, Lambert, and Sidney. The landscape is dominated by plains grassland complex but includes a large area of shrub grassland and a smaller area of plains forest. Land ownership includes state and federal lands but is dominated by private property. Agriculture, primarily ranching and secondarily dry land and irrigated farming, dominate the land use. Industrial activities include coal mining at Colstrip and natural gas and oil drilling in Richland, Dawson, and Fallon counties.

Fish Management

The relatively natural hydrograph and intact habitat of the lower Yellowstone River and its tributaries support a rich fish assemblage of 61 species (41 native and 20 non-native) composed of many warmwater and coolwater species, and a few coldwater species. Native fish species include sauger, shovelnose sturgeon, pallid sturgeon, channel catfish, burbot, paddlefish, freshwater drum, goldeye, shortnose gar, smallmouth buffalo, bigmouth buffalo, blue sucker, river carpsucker, shorthead redhorse sucker, white sucker, longnose sucker, mountain sucker, longnose dace, northern redbelly dace, creek chub, lake chub, sturgeon chub, brook stickleback, brassy minnow, fathead minnow, plains minnow, flathead chub, western silvery minnow, sand shiner, emerald shiner, golden shiner, and stonecat. Common carp, plains killifish, black bullhead, yellow bullhead, and green sunfish are introduced species that can be found in parts of all the drainage. Largemouth bass, smallmouth bass, walleye, white crappie, black crappie, northern pike, yellow perch, bluegill, and pumpkinseed have been stocked or illegally introduced and are found in reservoirs and stock ponds; some species are also established in the Yellowstone River and tributaries. Brown trout, rainbow trout, brook trout, and mountain whitefish inhabit reaches of the Yellowstone River near and upstream of the Bighorn River confluence. Brook trout

are also found in four small tributaries of the lower Yellowstone River. All four tributaries are influenced by coldwater releases from large groundwater springs.

A primary fisheries management objective for the lower Yellowstone River is monitoring and maintaining the wild and self-sustaining populations of native species. This includes a no fish stocking policy in rivers, other than pallid sturgeon due to their endangered species designation. This wild fish objective includes maintaining recreational harvest, on a limited basis, for native game species. Another primary objective is monitoring, maintaining, and improving the overall ecosystem health of the river. This objective includes reviewing stream bank projects to ensure habitat protection and allowing for natural stream form and function for efficient transport of both water and sediment. A secondary management objective is to maintain a recreational fishery for introduced fish species with an emphasis on harvest.

The lower Yellowstone supports a wild sauger population. Monitoring and sustaining this population for native species preservation and recreational angling is a primary management concern for FWP. Annual spring tagging of spawning sauger and subsequent recapture information from department sampling efforts and angler tag returns provides data used to estimate angler harvest and document fish movement. In the Yellowstone River upstream of Cartersville Diversion Dam there is a reduced limit on sauger because trend data suggest lower relative abundance of sauger upstream of the dam.

One threat to maintaining the sauger population in the Yellowstone River is the expanding population of non-native smallmouth bass. The smallmouth bass population has the potential to outcompete and displace sauger in some reaches of its historic range. In 2005, stable isotope analysis was used to investigate competition for prey between sauger and smallmouth bass in the Yellowstone River. Tissue samples for isotope analysis were collected from 10 prey species in July near Rosebud. Results show that sauger and smallmouth bass (>200mm in length) overlap almost completely in both carbon and nitrogen, indicating that these species are at the same trophic level and consume prey with the same carbon isotope signature in similar proportions (i.e., they are dependent on the same prey source).

Trend sampling on the Yellowstone River has demonstrated that sauger abundances are negatively correlated with smallmouth bass abundances. Smallmouth bass progressively replaced sauger as the most abundant predator in the Forsyth and Miles City areas during the consecutive drought years experienced in the 1980s and early 1990s. Specific life history stages, like spawning and foraging, are dependent on a natural hydrograph and increased turbidity. Smallmouth bass are visual feeders well suited to low turbidity conditions. Drought or low flow years result in reduced turbidity which favors smallmouth bass, while wet or high flow periods increase turbidity and favor sauger populations. Loss of the natural hydrograph and reduced turbidity from drought and dam operations on tributaries (Bighorn and Tongue River reservoirs), along with continued allocation of river water for irrigation or municipal use and armoring of stream banks on the rivers all create conditions that favor smallmouth bass over sauger.

The lower Yellowstone River provides a unique opportunity for anglers to catch and harvest a paddlefish. Despite a relatively short paddlefish season, an average of 2,682 paddlefish angler tags were purchased annually between 2007 to 2019. With technical guidance provided by the University of Idaho, FWP and North Dakota Game and Fish manage the paddlefish population in the lower Yellowstone River cooperatively. Paddlefish management is guided by the 10-year "[*Management Plan for North Dakota and Montana Paddlefish Stocks and Fisheries.*](#)" Paddlefish from this population spend most of their lives

in Lake Sakakawea in North Dakota. In May and June during elevated Yellowstone River discharge, paddlefish migrate up the Yellowstone and Missouri rivers to spawn. During paddlefish season, anglers can fish for paddlefish from the Bighorn River confluence to the North Dakota state line. Prior to 2022, most angling has occurred at and downstream of Intake Diversion Dam. The completion of the Intake Fish Bypass Channel in April 2022 resulted in more angler opportunity upstream of Intake Dam. The paddlefish season has specific regulations and management activities designed to ensure that this long-lived, late to mature species can continue to provide a sport fishing opportunity in Montana. FWP attempts to maximize angler opportunity while ensuring sustainability with a split season, with harvest-only days and catch-and-release-only days. Data collected from tagging efforts during catch-and-release fishing and gillnetting allows estimation of the population size each year. Data collected from harvested fish allows evaluation of population structure. Together this information allows FWP to monitor the overall size of the population and condition of the individuals within the population through time. A statewide paddlefish phone creel is conducted annually to obtain a harvest estimate that is compared to the field-measured harvest.

Research activities are conducted to understand and aid recovery of pallid sturgeon, a federally endangered species and state Species of Concern. Recent research includes monitoring adult pallid sturgeon migration pathways and reproduction within the Yellowstone River. The lack of successful natural recruitment prompted the stocking of juvenile hatchery-reared pallid sturgeon into the Yellowstone River as far upstream as Cartersville Diversion Dam. These fish are reared by state and federal hatcheries including the Miles City Fish Hatchery. Annual monitoring of juvenile pallid sturgeon occurs in late summer/early fall to assess survival, growth, and distribution of hatchery-stocked pallid sturgeon into the Yellowstone River. No harvest is allowed for pallid sturgeon because of its endangered species status.

Trend electrofishing is conducted annually on five reaches of the lower Yellowstone River to assess and monitor relative abundance, population structure, and relative condition of all fish species. Trend sections are six miles long and are located at Hysham, Forsyth, Miles City, Fallon, and Intake. Each site is sampled once in the months of August, September, and October. Data collected during this period is the baseline information for monitoring relative abundance and condition of sport and native fish species in the lower Yellowstone River.

The lower Yellowstone River drainage includes many private and public reservoirs that are managed for fisheries in the [Regional Pond Fishing Program](#). The primary justification for stocking these waters is to provide a family fishing opportunity. The program is used as a public relations opportunity with landowners and provides a fishing opportunity for the surrounding community. If the landowner agrees to allow free public access to the pond, FWP will stock and manage the fishery. Anglers are required to obtain landowner permission every time they access the fishery. Fish populations are established or supplemented when needed through stocking from a state hatchery or by wild fish transfers from another fishery. A variety of fish species are available for stocking from the state's hatcheries which include walleye, rainbow trout, smallmouth bass, largemouth bass, channel catfish, and northern pike. In 2020, the state's hatcheries completed 43 pond stockings within FWP Region 7. The statewide wild fish transfer policy also allows transferring fish between waters. In 2020, 32 wild fish transfers occurred within the region. Northern pike, yellow perch, black crappie, white crappie, and bluegill are often available for transfer. Transfers are usually done to reestablish, or augment ponds affected by winterkill or to provide forage. Reservoirs and stock ponds are sampled by FWP at least every three years to

evaluate the status of the fisheries and ensure a catchable stock of fish is present. A [Regional Pond Fishing Guide](#) is generated annually that summarizes the pond program, locations of ponds, and fish species available.

Overall fishing pressure is low to moderate in the drainage but increasing on the Yellowstone River due to increasing numbers of anglers owning riverboats. Within FWP Region 7 waters, the lower Yellowstone River consistently ranks number one in angler days. For the last five years the [statewide angler pressure survey](#) was completed, angler days by year for the Yellowstone River were 47,686 in 2020, 34,620 in 2019, 63,693 in 2017, 57,320 in 2015, and 40,477 in 2013. Ponds or reservoirs like Spotted Eagle Pond in Miles City, Hollecker Lake in Glendive, Baker Lake in Baker, South Sandstone Lake near Baker, Castle Rock Lake in Colstrip, and Gartside Reservoir near Sidney all experience relatively high fishing pressure within the region because of proximity to population centers. Many of the public reservoirs and private ponds in the district receive moderate to low angling pressure.

Habitat

The Yellowstone River, touted as the longest undammed river in the lower 48 states, has a relatively intact and natural hydrograph. Hydrograph fluctuations often consist of a short-duration elevated flows in early spring (March to April) from local snow melt and rain events, followed by a longer sustained-elevated flow in May to June from mountain snow melt. Historically, two major tributaries that are now dammed (Bighorn and Tongue rivers) provided a major influence on the hydrograph and sediment regime of the lower Yellowstone River. Construction of Tongue River Reservoir (on the Tongue River) and Yellowtail Dam (on the Bighorn River) permanently altered the hydrograph and sediment contribution to the lower Yellowstone River.

These anthropogenic habitat alterations are noteworthy because many native species in the lower Yellowstone River evolved and relied upon increased turbidity as a spawning cue. The increased turbidity may be critical to the life history of native fish species in the lower Yellowstone River. The resulting reduced turbidity creates favorable conditions for introduced species such as smallmouth bass. Prior to construction of Tongue River Reservoir and Yellowtail Dam, the Tongue and Bighorn rivers had sediment regimes similar to the Powder River. Sauger, channel catfish, paddlefish, shovelnose sturgeon, and pallid sturgeon are five native fishes that aggregate in the high-turbidity waters downstream of the Powder-Yellowstone River confluence. It is probable that similar fish aggregations historically occurred in the Yellowstone River downstream of the confluences with the Tongue and Bighorn rivers prior to dam construction.

Over-allocation of water from the Yellowstone River drainage, particularly in July and August, is poised to be a threat to fisheries resources and existing water right owners in the future and certainly during the next drought cycle. Securing adequate instream flows during low flow months (July to August) or drought periods is a special management concern for the lower Yellowstone River. A particular concern is the continued development of conservation district water reservations (CDWR) in the lower basin (downstream of the Bighorn-Yellowstone River confluence). In the 1970s, when Yellowstone River water reservations were established, CDWR in the upper basin (upstream of the Bighorn River) were designated junior to the states instream reservations but senior in the lower basin. For example, applicants that obtain a CDWR today from the lower basin will have a senior water right to the states 1978 instream flow reservation. In 2016, only 12.7% and 14.6% of CDWR set aside for future water

development in 1978 have been allocated from the upper and lower basins respectively. This creates a concern for future management of the Yellowstone River and large fish species like paddlefish and pallid sturgeon.

Four low-head diversion dams on the lower Yellowstone River (Ranchers, Yellowstone, Cartersville, and Intake) create anthropogenic barriers to upstream fish migrations. The impact on migration is different at each dam. Cartersville and Intake dams are the most significant fish barriers. Native fish exhibit extensive seasonal migrations that are critical to their life history and to maintaining populations throughout the lower Yellowstone River. Working with irrigation districts to facilitate fish passage at barriers is a critical habitat improvement goal for the regional fisheries management program. In April 2022, the U.S. Army Corps of Engineers (USACOE) and Bureau of Reclamation (BOR) completed a fish bypass channel around Intake Diversion Dam and installed a new concrete weir immediately upstream of the existing rock-filled wooden crib structure (see BOR and USACOE [2016 Lower Yellowstone Intake Diversion Dam Fish Passage Project, Montana, Final Environmental Impact Statement](#)). During the planning process for the bypass channel project, FWP collaborated with BOR to document the status of fish passage at the original Intake structure. A telemetry approach was used to monitor the movements of pallid sturgeon, shovelnose sturgeon, sauger, blue sucker, and paddlefish. Fish were implanted with radio transmitters in both a test reach immediately downstream of Intake Diversion Dam as well as in an unimpeded control reach upstream of Glendive. The first four years of the study (2015 to 2018) established a pre-construction baseline for fish passage which will be compared to post-construction fish passage study. Pre-construction fish passage was observed for all five species, but both the rate and the route of passage varied by species and by discharge. Pallid sturgeon, the species driving the large-scale construction project, encountering the dam passed upstream during times of high discharge using an existing high-flow side channel that circumvented the dam. Conversely, shovelnose sturgeon passed upstream over the diversion dam at times of low discharge. Approximately half of the sauger encountering Intake Diversion Dam were observed passing upstream both over the dam and around the dam via the high-flow side channel. Nearly all blue sucker encountering Intake passed upstream over the dam. Paddlefish exhibited a similar pattern to pallid sturgeon, mostly passing upstream via the high-flow side channel when river discharge was high. Post-construction fish passage monitoring through the bypass channel began the spring of 2022 and will continue through 2025 to be comparable with the 4-year (2015 to 2018) pre-construction study. Monitoring efforts will continue after 2025 considering many of the transmitters utilized will continue to function through approximately 2028 to 2030.

Entrainment of fish into unscreened water intakes is also a concern in the river drainage. Installation of screens will prevent or reduce the entrainment of fish into canals and other water intake structures. In 2011, a new headgate with screens was completed at Intake canal. A screening structure was also installed at the Buffalo Rapids Shirley pump site. Operation of the Shirley fish screens has been problematic for various reasons and has not been operational or utilized since approximately 2019.

The lower Yellowstone River riparian corridor provides critical wildlife habitat. It varies from sparse ribbons of trees to robust cottonwood galleries. Much of the floodplain is developed for irrigated agriculture. Other developments include the construction of railroads, as well as numerous roads to accommodate vehicle travel, including county roads, state highways, and a federal interstate highway. All these developments have impacted the ability of the Yellowstone River to migrate laterally and interact with its historic floodplain. The use of rock or concrete rip rap to protect city infrastructure, roads, bridges, homes, and farmland/ranchland has restricted some of the natural function of the

Yellowstone River and prairie streams. These impacts may extend to the quality of fish habitat in the river. The installation of culverts, fords, and dams has similar impacts on the function of the river, tributaries, and prairie streams and even greater impacts on upstream fish migrations.

The lower Yellowstone River drainage has some of the deepest ponds and reservoirs in the region, but many private and public ponds are still limited by water depth. Ponds with a maximum depth of 10-11 feet are generally marginal for overwintering fish during winters with sustained snow accumulations. The severity and prevalence of winterkills may be reduced by installing windmill aerators. Some landowners and the Bureau of Land Management (BLM) have installed aerators at their expense in attempt to reduce winterkill occurrences. FWP has refrained from installing aerators because of the time and expenses required to service and maintain the structures.

Special Management Issues

Resource management in the lower Yellowstone River drainage requires involvement and collaboration with many agencies, nongovernment organizations, and local user groups. Common players working on river issues include Department of Natural Resources Conservation (DNRC), BLM, U.S. Fish & Wildlife Service (USFWS), BOR, USACOE, Burlington Northern Santa Fe Railroad, Yellowstone River Conservation District Council, local conservation districts, cities, landowners, and public users. Land use, energy development, and water allocation are special management issues that affect multiple stakeholders in the drainage and will require participation from everyone to effectively address future impacts.

Intake Fish Passage Channel Fisheries Monitoring

Post Intake 4-Year Telemetry Fish Passage Monitoring: Conduct telemetry study of five native species (pallid sturgeon, shovelnose sturgeon, paddlefish, sauger, and blue sucker) at Intake and upstream from 2022 to 2025 and compare to fish passage documented during the pre-construction study completed 2015 to 2018. Use data and observations to guide adaptive management actions identified for the bypass channel.

Standardized Larval Sampling: Annual sampling began in 2019 to document larval fish production of *Acipensiform* larvae (pallid sturgeon, shovelnose sturgeon, and paddlefish) at two locations upstream of Intake Dam. One site includes samples from the Tongue River and Yellowstone River both upstream and downstream of the Tongue River confluence. The second site includes the Powder River and Yellowstone River upstream and downstream of the Powder River confluence. Crews from BOR will also larval sample upstream of Intake Dam, downstream of Intake Dam, within the bypass channel, and within the Lower Yellowstone River Irrigation Canal. Efforts and data collected by both agencies will be summarized collectively to evaluate spawning activities for all three species. Larval samples will be genetically identified to species by lab analysis.

Pallid Sturgeon Larval Drift Experiment: Coordinate with USFWS, BOR, and U.S. Geological Survey (USGS) to release hatchery produced larval pallid sturgeon upstream of Intake Diversion Dam. The goal is quantifying if larvae released from potential spawning locations in the Powder or Yellowstone rivers have adequate drift distance to become settled before reaching the anoxic zone at the headwaters of Lake Sakakawea in North Dakota. The study includes releasing large numbers of genetically unique family groups of 1-day post hatch pallid sturgeon free embryos at specific locations and sampling for settled larvae mid- to late-summer in downstream reaches.

Paddlefish Harvest Monitoring: The states of Montana and North Dakota jointly manage harvest of paddlefish (as outlined in [10-year joint management plan](#)) from the Lake Sakakawea paddlefish population. Harvest in each state is currently capped at 1,000 fish. Paddlefish season for this fishery in Montana is May 15 to June 30. Tracking harvest occurs from onsite creel at Intake Diversion Dam, self-reporting stations at various public access sites, and by anglers self-reporting online or via a phone hotline. Historically through 2021, 80% of the annual paddlefish harvest in Montana occurred at Intake due to concentration of fish blocked by the dam. With the new fish bypass channel opened at Intake Dam the spring of 2022, paddlefish concentrations did not occur at Intake in 2022 and is expected to be the new normal as the fish distribute further upstream. Monitoring paddlefish harvest and collecting jaw sections to age harvested fish could become problematic as paddlefish and anglers disperse upstream. Considerable effort will be needed, including a roving creel, to determine how to efficiently monitor paddlefish harvest. Changes to paddlefish regulations will also be warranted if paddlefish migrations and angler harvest rates change considerably. Future paddlefish regulation proposals could include reducing the paddlefishing area from Miles City to North Dakota (currently Bighorn River confluence to North Dakota), ending the season June 15 rather than June 30, eliminating staggered harvest and catch-and-release days, expanding catch-and-release to more areas, providing a catch and release only license (voluntarily forgoing a harvest opportunity), and regulation differences between the Yellowstone and Missouri rivers.

Sauger Population Impacts from Sakakawea Walleye Spawning Migrations: Continue spring tagging efforts at Intake and near the Powder-Yellowstone confluence with electrofishing and trammel netting to evaluate changes in walleye abundances upstream of Intake. Tagged fish and angler tag returns will assist with understanding walleye distribution upstream of Intake during spring spawning events and throughout the year. Collectively reviewing spring tagging and fall trend electrofishing data will help to inform if expanding walleye migrations from Lake Sakakawea are occurring, to what extent migrant walleye are transitioning to year-long residency upstream of Intake, and if these changes have impacts on the sauger population. Occasional genetic analysis studies of both species may assist with understanding if hybridization rates are changing over time.

Yellowstone River Fish Population Monitoring

The fish assemblage in the river is sampled using a suite of gears each year between spring and autumn. Trammel netting and electrofishing are used in March and April to capture and tag sauger and walleye. Pallid sturgeon sampling using trammel nets occurs from April to October, with most of the netting effort occurring in August and September. Since the mid-1980s, long-term trend electrofishing is completed each August, September, and October in the following five trend areas: Forsyth (downstream of Cartersville Diversion), Miles City (above and below the Tongue River confluence), Fallon (above and below the O' Fallon Creek confluence), Intake (downstream of Intake Diversion) and since 2003, Hysham (downstream of Rancher Diversion). Trend areas are approximately six river miles in length. All fish encountered are collected, identified to species, enumerated, and a subset of each species is measured and weighed. An index of abundance (catch per unit effort) is calculated for all species captured. These monitoring efforts will continue concurrently with ongoing monitoring of fish passage at Intake.

Manual Fish Removals at Ponds

Maintaining a quality fishery at Hollecker Pond at Glendive and Spotted Eagle Pond at Miles City is challenging due to chronic presence of nontarget fish species. At Hollecker Pond, juvenile fish are introduced with the ponds sole water source which is an irrigation canal filled by pumps in the Yellowstone River. Efforts over the years to reduce entrainment of the nontarget fish species has been limited and temporary at best. Allowing local stakeholders to drain the pond in the fall prior to ice formation every 3 to 5 years to reset the fishery, has become a viable alternative. Additional steps to explore include water management activities that only allows screened water to flow into the pond when water is needed to maintain the desired water level. This activity would also require moving the pumps, used by the city to irrigate the surrounding lawn, from the lake into the canal. At Spotted Eagle Pond, nontarget fish species migrate into the lake during high Tongue River flow events. Manual capture of nontarget species via netting and electrofishing and releasing them back into the Tongue River has reduced nontarget fish abundances. Manual capture will continue annually to suppress nontarget fish species and numbers.

Wild Fish Transfers to Prairie Ponds

Wild fish transfers are a tool to augment fish populations or establish new populations where they fail (winterkill) or currently do not exist. Prairie ponds in arid eastern Montana are generally shallow, providing adequate water and fish habitat for relatively short periods (1 to 5 years) due to limited runoff from snow melt or rain events. This results in ponds with limited spawning and rearing potential or a high frequency of fish winterkills. Wild fish transfers may be of mixed size and age classes or be limited to adult sized fish depending on the management objective. Adult fish provide an immediate angler opportunity and secondly, if moved pre-spawn, produce a new year-class of fish within days or weeks of being transferred. Routine AIS and pathogen testing occurs at the following FWP Region 7 waters to provide ready sources for fish transfers when needed: South Sandstone Reservoir (yellow perch, northern pike, crappie); Maier Reservoir (fathead minnows, yellow perch); Yellowstone River (walleye, channel catfish); Tongue River Reservoir (crappie); Castle Rock Reservoir (bluegill, largemouth bass); and Grant, Cherry Creek, and Coal Creek reservoirs (fathead minnows).

Baker Lake

FWP is assisting the Fallon County Commission and the City of Baker with establishing a new fishery following a largescale rehabilitation project completed at Baker Lake in 2018. Following the initial fish stocking in 2019, FWP committed to biannual fish sampling (spring and fall) and fish augmentation by hatchery stocking and wild fish transfers.

Castle Rock Lake

The future of the lake is uncertain considering its primary purpose is providing water to the coal-fired power plants and Colstrip municipal water system. Power plants 1 and 2 were decommissioned in 2019, units 3 and 4 are scheduled for closure by 2025. Without the power plants, the cost of pumping water from the Yellowstone River into the lake may be cost prohibitive for the City of Colstrip. FWP will work with the city and other agencies to determine opportunities to secure a viable source of water for the

city municipal system and potential opportunities for the lake. Ongoing FWP activities at the lake include enforcement of boating regulations, annual fish population sampling, and stocking efforts outlined in the Fish Management Direction table below.

Live Bait Fish Production

FWP Region 7 fisheries staff is using otherwise fishless prairie ponds to put-grow-and-take fathead minnows. These sources will be inspected annually for aquatic invasive species and fish pathogens. The goal is to provide a clean disease-free source of live bait fish for anglers and vendors, as well as a forage supplementation tool for FWP's use in forage limited waters. Montana, like many other states and provinces, is experiencing a public perception that live bait fish (minnows and suckers) availability on the landscape and through commercial vendors is declining. This is creating a demand for live bait fish that can include importing bait from outside the state. This increases the risk of inadvertently introducing aquatic invasive species and non-native fish into Montana waters. With these realities in mind, providing and securing disease free sources for live bait fish from within the state is being explored.

Fishing Contests

Interest in fishing contests on rivers continues to grow in eastern Montana. To address biologic and social concerns related to fishing contests, the following fishing contest restrictions and recommendations have been jointly developed for the Yellowstone River between FWP Regions 5 and 7. Additional stipulations and considerations for fishing contests can be found in Appendix B.

Stipulations incorporated into Contest Rules under Authority of 87-3-121, MCA:

1. Contest approved only for single waterbody (i.e., distinct reservoir, lake, or river (ARM 12.7.802)).
2. No tournaments allowed on Holiday Weekends (ARM 12.7.805) including Easter, Mother's Day, Memorial Day, Father's Day, 4th of July, Labor Day, Columbus Day, and Veterans Day.
3. Only one tournament per weekend will be allowed within each FWP Region 5 and 7. A body of water cannot have consecutive weekend tournaments (ARM 12.7.805)
4. No contests for Endangered Species Act (ESA) listed species, species of concern, or for wild trout (ARM 12.7.807).
5. Walleye tournaments: sauger are defined as any *Sander* (sauger/walleye) with multiple small, distinct black spots on the spiny (first) dorsal fin ray membrane. Fish meeting this criterion are classified as sauger and are not allowed for weigh-in.
6. Live bait and fish must be transported in clean domestic water when allowed in current fishing regulations (ARM 12.5.706).
7. Vessels and equipment approaching a department inspection station must stop as directed (ARM 12.5.706).
8. Vessels and equipment entering the state that do not approach a department inspection station must be inspected for aquatic invasive species prior to launching in any Montana waterbody (ARM 12.5.706).

9. No contests in the Bighorn River from the confluence of the Little Bighorn to Afterbay Dam or in the Yellowstone above Huntley Diversion Dam (smallmouth bass tournaments may be considered above Huntley Diversion Dam)
10. Tournament boundaries must be clearly defined in the contest application. Proposed boundary size should be minimized to reduce tournament related fish mortality caused by fish being held in live wells for extended periods and/or traveling long distances.
11. A shotgun-style start for boat tournaments on rivers can be extremely dangerous and must be evaluated by tournament sponsors. If boats are required to start at one location, tournament sponsors need to implement an orderly, single file, timed start for every boat or other method (e.g., use of multiple boat ramps) to reduce the safety risks and liability associated with a rapid start.
12. Contests are prohibited in August due to high water temperatures. Additional stress from a fishing contest dramatically increases the likelihood of delayed fish mortality.
13. Participants cannot possess more than a daily limit at one time.
14. Catch-and-release formats only.
15. Limit two poles per person (unless regulations restrict anglers to one rod (i.e., Central District streams and rivers).
16. No setlines, trot lines, or hoop nets allowed.
17. No stringers.
18. Live wells and other fish holding containers such as coolers are required to have aeration running when fish are held, and water exchanged at minimum on an hourly basis.
19. Sponsors are encouraged to penalize anglers or teams with dead fish.
20. Landowner permission required at private boat ramps or on private property of weigh-ins.
21. No off-site weigh-ins, they must occur on the water or at shoreline. Weigh-ins conducted throughout the day will get preference over weigh-ins at days end.
22. Downstream of Cartersville Diversion Dam at Forsyth, incorporate following into contest rules and stressed by sponsor during rules meeting: Advise participants of juvenile and adult pallid sturgeon presence in the river – advise participants to release all sturgeon captured immediately and advise tournament sponsor of capture event and location.
23. Catfish contests in FWP Region 7 will be capped at 7 contests per year to reduce the cumulative biological impacts on fish populations and reduce scheduling conflicts with other contests. A percentage of fish die from delayed mortality due to impacts of stress associated with fishing contests. In 2020, the average number of catfish caught per tournament was 180.6 fish from 5 total contests. This equates to 903 catfish being caught and handled during these events in 2020. In 2021, there were 7 catfish contests on the Yellowstone River that equates to an estimated 1,264 catfish being handled.

FWP also provides the following recommendations for FWP Region 5 and 7 contests:

1. Tournaments that don't transport fish to a centralized weigh-in will be given preference over centralized weigh-in tournaments. Bank fishing is discouraged unless fish measurements are recorded by anglers or roving measurement staff and fish are released

on site. This prevents handling time and associated stress on fish from poor handling and hauling techniques (e.g., five-gallon buckets). Hauling fish away from a waterbody and then releasing it back into the source water after transportation via vehicle on a county road or highway is technically illegal (see 87-5-701 *et seq.*, MCA).

2. Contest sponsor(s) are responsible for safe fish handling procedures and to ensure fish are released back to the source water. Stipulations for tournaments with large geographic boundaries may be required to separate fish taken from different locations and return them to specified locations as part of the permit requirements. This may require sponsors to have tanks large enough to hold fish (one-half pounds of fish per gallon of water is a general recommendation for holding and transporting fish), have oxygenation systems, and the ability to haul fish.
3. Discourage contest on the Yellowstone River during the critical spawning period for channel catfish and walleye (same as sauger). Channel catfish spawn between 75 F to 85 F which typically occurs from June 15 to July 15 on the Yellowstone River. Walleye and sauger spawn at 50 F which typically occurs in April.

FISHERIES MANAGEMENT DIRECTION FOR LOWER YELLOWSTONE RIVER DRAINAGE

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Yellowstone River - confluence of Bighorn River to Cartersville Dam	59 miles	Sauger (N)	Wild	Conservation	Manage sauger population for limited consumptive harvest by reduced harvest limits.
		Paddlefish (N)	Wild	Conservation	Monitor paddlefish use of this section of river in years that paddlefish successfully migrate upstream of Intake Dam.
		Channel catfish (N)	Wild	General	Manage as a recreational fishery. Standardize catfish sampling methods for comparison across eastern Montana.
		Smallmouth bass	Wild	General	Recreational fishery with an emphasis on harvest. Monitor to evaluate the impacts of smallmouth bass on native fish populations in the Yellowstone River.
		Walleye	Wild	General	Recreational fishery with emphasis on harvest. Monitor to evaluate source of walleye in Yellowstone River to direct management decisions for sauger conservation.
		Multi species	Wild	General/ Conservation	Manage for recreational fishing opportunity where applicable. Monitor nongame fish species for native fish assemblage and overall ecosystem health.
Habitat needs and activities: Increase fish passage and reduce fish entrainment into canals at Ranchers, Yellowstone, and Cartersville diversion dams and other irrigation intakes. Maintain/restore river ecosystem health and function by minimizing impacts of stream bank stabilization projects thereby decreasing channel confinement.					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Yellowstone River – Cartersville Dam to Powder River confluence	88 miles	Sauger (N)	Wild	Conservation	Manage sauger populations for limited consumptive harvest. Monitor threat of hybridization with walleye and direct management decisions that maximize angler opportunity while protecting genetic integrity of the sauger population. Protect critical sauger spawning habitat from Miles City to Glendive.
		Paddlefish (N)	Wild	Conservation	Monitor paddlefish use of this section of river in years that paddlefish successfully migrate upstream of Intake Dam.
		Channel catfish (N)	Wild	General	Manage as a recreational fishery. Standardize catfish sampling methods for comparison across eastern Montana.
		Smallmouth bass	Wild	General	Recreational fishery with an emphasis on harvest. Monitor to evaluate the impacts of smallmouth bass on native fish populations in the Yellowstone River.
		Walleye	Wild	General	Recreational fishery with an emphasis on harvest. Monitor to evaluate source of walleye in Yellowstone River to direct management decisions for sauger conservation.
		Shovelnose sturgeon (N)	Wild	General/ Conservation	Manage as a recreational fishery with some harvest opportunity. Monitor population health of this long-lived native species.
		Pallid sturgeon (N)	Wild	Conservation	Endangered species, harvest prohibited. Conduct research to assist decision making for recovery of

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Blue sucker (N)	Wild	Conservation	species. Increase genetic diversity through stocking following pallid sturgeon recovery plan . Monitor fish passage at Intake Diversion Bypass Channel and monitor subsequent upstream passage, habitat use, and spawning activities.
		Multi species	Wild	Conservation/ General	Monitor population and investigate life history and movements throughout Yellowstone River. Evaluate need for restrictive harvest regulations for conservation. Manage for recreational fishing opportunity where applicable. Monitor nongame fish species for native fish assemblage and overall ecosystem health.
Habitat needs and activities: Explore fish passage at Cartersville, monitor fish passage at Intake Diversion Dam and reduce fish entrainment into irrigation intakes. Maintain/restore river ecosystem health and function by minimizing impacts of stream bank stabilization projects thereby decreasing channel confinement. Protect critical sauger spawning habitat from Miles City to Glendive.					
Yellowstone River – confluence of Powder River to North Dakota state line	134 miles	Paddlefish (N)	Wild	Restrictive Regulations	Intensively monitor population and harvest to determine population trends. Management shared and coordinated through a Montana and North Dakota Management Plan . Increase and monitor fish passage at Intake Diversion Dam including habitat use and spawning activity upstream.
		Pallid sturgeon (N)	Wild/ Hatchery	Conservation	Endangered species, harvest prohibited. Conduct research to assist decision making for recovery of species. Increase genetic diversity through stocking following pallid sturgeon recovery plan . Monitor fish passage at Intake Diversion Dam and

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Sauger (N)	Wild	Conservation	monitor subsequent upstream passage, habitat use, and spawning activities.
		Channel catfish (N)	Wild	General	Manage sauger populations for limited consumptive harvest. Monitor threat of hybridization with walleye and direct management decisions that maximize angler opportunity while protecting genetic integrity of the sauger population.
		Shovelnose sturgeon (N)	Wild	General/ Conservation	Manage as a recreational fishery. Standardize catfish sampling methods for comparison across eastern Montana.
		Walleye, Northern pike	Wild	General	Manage as a recreational fishery with some harvest opportunity. Monitor population health of this long-lived native species.
		Blue sucker (N)	Wild	Conservation	Recreational fishery with emphasis on harvest. Monitor to evaluate source of walleye in Yellowstone River to direct management decisions for sauger conservation.
		Multi species	Wild	Conservation/ General	Monitor population and investigate life history and movements throughout Yellowstone River. Evaluate need for restrictive harvest regulations for conservation.
					Manage for recreational fishing opportunity where applicable. Monitor nongame fish species for native fish assemblage and overall ecosystem health.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Habitat needs and activities: Monitor fish passage at Intake Diversion Dam and reduce fish entrainment into irrigation intakes. Maintain/restore river ecosystem health and function by minimizing impacts of stream bank stabilization projects thereby decreasing channel confinement. Monitor fish passage at Intake Diversion Dam and monitor subsequent upstream passage and habitat usage.					
Perennial streams: Rosebud O'Fallon Big Porcupine Sarpy Cabin South Sunday Cedar Thirteenmile Fox Burns Intermittent streams: South Sunday Sandstone North Sunday Cherry Glendive Sweeney Armells Reservation Sunday Ephemeral streams: 48 with documented fish populations	208 miles 157 miles 107 miles 103 miles 98 miles 87 miles 60 miles 50 miles 49 miles 42 miles 87 miles 72 miles 68 miles 63 miles 53 miles 33 miles 27 miles 27 miles 15 miles	Multi species	Wild	Conservation/ General	Maintain fishery through habitat protection and restoration. Maintain or increase connectivity. Opportunistic monitoring to further understand system and population dynamics.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Habitat needs and activities: Improve fish passage at current restrictions (culverts, fords, dams) and ensure future structures provide for adequate creek flow and fish passage.					
Castle Rock Lake	153 acres	Largemouth bass, Walleye, Channel catfish (N)	Wild/Hatchery	General/ Put-Grow-and-Take	Manage as a recreational fishery, supplement population through stocking if necessary.
		Northern pike	Wild/Hatchery	General	Provide additional angling opportunity and control forage base, supplement population through stocking if necessary.
		Bluegill, Crappie	Transfer	General	Provide additional panfish angling and prey base for bass, pike, and walleye. Maintain fisheries through wild fish transfers.
Habitat needs and activities: The future of Castle Rock Lake is uncertain due to changing water needs. Power plants 1 and 2 were decommissioned in 2019 and power plants 3 and 4 are scheduled for closure in 2025. Without the need for power plant water, the cost of pumping water from the Yellowstone River into Castle Rock Lake will be cost prohibitive for the City of Colstrip. FWP will continue work with the City of Colstrip and other agencies to determine opportunities to secure a viable source of water for the city municipal system and potential opportunities for the lake.					
South Sandstone Reservoir	114 acres	Largemouth bass, Walleye	Wild/Hatchery	General/ Put-Grow-and-Take	Manage as a recreational fishery, supplement population through stocking if necessary.
		Northern pike	Wild/Hatchery	General	Provide additional angling opportunity and control forage base, supplement population through stocking if necessary.
		Yellow perch, Crappie	Transfer	General	Provide additional panfish angling and prey base for bass, pike, and walleye. Maintain fisheries through wild fish transfers.
Habitat needs and activities: Evaluate and explore options to modify overflow structure at dam to reduce escapement of adult fish into South Sandstone Creek.					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Baker Lake	96 acres	Rainbow trout	Hatchery	Put-and-Take	Supplement population and angler opportunity through occasional stocking of catchable sized trout.
		Walleye	Wild/ Hatchery	General	Provide additional angling opportunity and control forage base, supplement population through stocking and wild fish transfers if necessary.
		Yellow perch, Crappie	Wild/ Transfer	General	Provide additional panfish angling and prey base for bass and pike. Maintain fisheries through wild transfers.
Habitat needs and activities: A substantial rehabilitation of the lake was completed in 2019. This increased water depths and mitigated historical winterkill problem; frequent sampling to monitor progress and stocking or wild fish transfers as needed.					
Spotted Eagle Pond	36 acres	All species	Wild/ Hatchery/ Transfer	Restrictive Regulations	High angler pressure and limited natural fish production mandates a reduced harvest: five fish daily and in possession, any combination of species.
		Largemouth bass, Walleye, Northern pike	Wild/ Hatchery	Put-Grow-and-Take	Manage as a recreational fishery, supplement population through stocking and wild fish transfers if necessary.
		Channel catfish (N)	Wild/ Transfer	General	Provide additional angling opportunity and control forage base, supplement population through wild fish transfers if necessary.
		Yellow perch, Crappie, Bluegill	Transfer	General	Provide additional panfish angling and prey base for bass, pike, and walleye. Maintain fisheries through wild fish transfers.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Common carp, Goldeye, Bigmouth buffalo, Smallmouth buffalo, River carpsucker	Wild	Suppression	Abundance of these species reduces forage supplies (zooplankton, invertebrates, larval fish) for game and sport fish. Annual sampling will allow manual capture and transfer to the Tongue River.
Habitat needs and activities: Poor natural fish production, growth, and recruitment because of competition with nontarget species (migrating from Tongue River), little habitat complexity, and aquatic vegetation is limited. Offset with frequent wild fish transfers and habitat projects aimed at increasing water quality and reducing nontarget fish abundance.					
Gartside Reservoir	35 acres	Largemouth bass, Northern pike, Channel catfish	Wild/ Hatchery	General/ Put-Grow-and-Take	Maintain fishery through regulations and stocking if necessary.
		Bluegill, Yellow perch, Crappie	Transfer	General	Provide additional panfish angling and prey base for bass, pike, and walleye. Maintain fisheries through wild fish transfers.
Johnson Reservoir	21 acres	Yellow perch	Wild/ Transfer	General	Manage as a recreational fishery. Supplement population through wild fish transfers if necessary. Use population for transfer to other ponds.
Habitat needs and activities: Utilize yellow perch population as donor source for wild fish transfers to other ponds/reservoirs. Explore opportunities to control forage base.					
Rattlesnake Reservoir	12 acres	Crappie, Rainbow trout	Wild/ Transfer	General	Provide panfish angling opportunity, supplement population through wild fish transfers when necessary.
Habitat needs and activities: Limited water depth and severity of winter creates an annual problem of partial or total winter kill; BLM rebuilt dam in 2018; limitation offset by aerator installation and frequent sampling and wild fish transfers.					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Homestead Reservoir	12 acres	Yellow perch	Wild/ Transfer	General	Manage as a recreational fishery. Supplement population through wild fish transfers if necessary.
		Northern pike	Wild/ Hatchery	General	Provide additional angling opportunity and control forage base, supplement population through stocking if necessary.
Habitat needs and activities: Water depth (less than 12 feet deep) that occasionally leads to winterkill; limitation offset by windmill aerator, frequent sampling and stocking or wild fish transfers.					
Marshall Reservoir, Silvertip Reservoir	11 acres 10 acres	Largemouth bass, Rainbow trout	Wild/ Hatchery	General/ Put-Grow-and-Take	Manage as a recreational fishery, supplement population through stocking if necessary.
Habitat needs and activities: Water depth (less than 12 feet deep) is a limitation that leads to winterkill; limitation offset by windmill aerator, frequent sampling and stocking or wild fish transfers.					
Hollecker Pond	7 acres	Black crappie, Yellow perch	Wild/ Hatchery	General	Manage as a recreational fishery, supplement population through stocking if necessary.
		Channel catfish, Walleye	Wild/ Transfer	General	Provide additional angling opportunity and control forage base, supplement population through wild fish transfer if necessary.
		Rainbow trout	Hatchery	Put-and-Take	Annual stocking of catchable sized trout for kids fishing day and general angler enjoyment.
Habitat needs and activities: Frequent establishment of undesirable species via irrigation water supply or from illegal introductions. Management of undesirable species requires periodic rehabilitation by mechanical draining every 3 to 5 years in the fall.					
Maier Pond	6 acres	Yellow perch, Fathead minnows	Wild/ Transfer	General	Provide panfish angling opportunity; maintain fisheries through wild fish transfers when necessary. Use as source population for wild fish transfers to other waterbodies.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Habitat needs and activities: Water depth (less than 12 feet deep) is a limitation that leads to winterkill; limitation offset by windmill aerator, frequent sampling and stocking or wild fish transfers.					
Public trout ponds: Clarks, South Fork, Oil Pump, Harms, Fort Keogh	34 acres 19 acres 7 acres 5 acres 3 acres	Rainbow trout	Hatchery	Put-Grow-and-Take	Annual stocking of trout for angler opportunity.
Habitat needs and activities: Water depth (less than 12 feet deep) is a limitation that leads to winterkill; limitation offset by annual stocking.					
Small private ponds/reservoirs	Various	Trout	Hatchery	Put-Grow-and-Take	Public relations opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and annual stocking.
		Bass, Walleye, Northern pike	Wild/ Hatchery	General	Public relations opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and annual stocking when necessary.
		Crappie, Yellow perch, Bluegill	Wild/ Transfer	General	Public relations opportunity with landowners to provide local fishing opportunity for rural community. Provide panfish angling opportunity, supplement population through wild fish transfers when necessary.
Habitat needs and activities: Water depth (less than 12 feet deep) is a limitation that leads to winterkill; limitation offset by windmill aerator, frequent sampling and stocking or wild fish transfers.					
Public ponds with live baitfish: Coal Creek, Grants, and Cherry Creek.		Fathead minnows	Wild/ Transfer	Put-Grow-and-Take	Annual wild fish transfers when water and baitfish are available.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Others when opportunities are identified.					
Habitat needs and activities: Water depth (less than 12 feet deep) is a limitation that leads to winterkill; limitation offset by wild fish transfers when water and baitfish sources are available.					